

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of the claims in this application.

Listing of the Claims:

1. (Currently amended) A process for the preparation of a 2,2'-dihydroxybiphenyl ~~by oxidative~~ comprising oxidatively coupling of two phenol molecules which have a hydrogen atom in an o-position ~~by means in the presence~~ of a peroxide ~~in the presence of and~~ water at from 0 to 100°C, wherein the preparation is ~~carried out~~ conducted in the presence of a water-insoluble polymer, comprising

- a) from 0.1 to 99.9% by weight of at least one vinyl heterocycle
- b) from 0.1 to 10% by weight of at least one difunctional crosslinking component
- c) from 0 to 99.8% by weight of styrene or at least one monounsaturated styrene derivative or a mixture thereof, the stated percentages by weight of the individual components a), b) and c) summing to 100%.

2. (Currently amended) A process for the preparation of a 2,2'-dihydroxybiphenyl ~~by oxidative~~ comprising oxidatively coupling of two phenol molecules which have a hydrogen atom in an o-position ~~by means in the presence~~ of a peroxide ~~in the presence of and~~ water at from 0 to 100°C, wherein the preparation is ~~carried out~~ conducted in the presence of a water-insoluble polymer, comprising

- a) from 0 to less than 100% by weight of at least one vinyl heterocycle
- b) from 0 to 10% by weight of at least one difunctional crosslinking component
- c) from 0 to less than 100% by weight of styrene or at least one monounsaturated styrene derivative or a mixture thereof

- d) from 0 to 100% by weight of at least one N-vinylamide of an aliphatic carboxylic acid, or of the monomers obtained by partial or complete hydrolysis of said amido group
- e) from 0 to 100% by weight of at least one vinylcarboxylic acid or its esters, amides or salts or of the monomers obtained by partial or complete hydrolysis of said amido group or ester group, with the proviso that
the content of compound d) is more than 0% by weight or
the content of compound e) is more than 0% by weight or
the content both of compound d) and of compound e) is more than 0% by weight, the stated percentages by weight of the individual components a), b), c), d) and e) summing to 100%.

3. (Currently amended) A process according to claim 1 ~~or 2~~, the process being carried out at from 15 to 50°C.

4. (Currently amended) A process according to ~~any of claims 1 to 3~~, claim 3, wherein the peroxide is an inorganic peroxide ~~being used as the peroxide~~.

5. (Currently amended) A process according to ~~any of claims 1 to 3~~, claim 3, wherein the peroxide is a persulfate anion ~~being used as the peroxide~~.

6. (Currently amended) A process according to claim 5, wherein the persulfate anion ~~being used in the presence of~~ comprises an ammonium, sodium or potassium cation.

7. (Currently amended) A process according to ~~any of claims 1 to 6, the reaction being carried out~~ claim 1, wherein the coupling is conducted in the presence of amounts of iron or of an iron compound which are suitable as catalyst.

8. (Currently amended) A process according to ~~any of claims 1 to 7, claim 1, wherein the phenol used being~~ is 2,4-dimethylphenol, and the 2,2'-dihydroxybiphenyl obtained being is 2,2'-dihydroxy-3,3',5,5'-tetramethylbiphenyl.

9. (Currently amended) A process according to ~~any of claims 1 to 8, claim 1, wherein the~~ at least one vinyl heterocycle is selected from N-vinyllactam or at least one N-vinylamidine or a mixture thereof ~~being used as the vinyl heterocycle.~~

10. (Currently amended) A process according to claim 9, wherein the N-vinyllactam is selected from N-vinylpyrrolidone, N-vinylpiperidone, N-vinylcaprolactam or a mixture thereof ~~being used as the N-vinyllactam.~~

11. (Currently amended) A process according to claim 9, wherein the N-vinylamidine is selected from N-vinylimidazole, N-vinyl-2-methylimidazole, N-vinyl-4-methylimidazole or a mixture thereof ~~being used as the N-vinylamidine.~~

12. (Currently amended) A process according to ~~any of claims 1 and 3 to 11, a claim 1, the~~ water-insoluble polymer comprising

a) from 0.1 to 99.9% by weight of N-vinylpyrrolidone as the at least one vinyl heterocycle

b) from 0.1 to 10% by weight of at least one difunctional crosslinking component

- c) from 0 to 99.8% by weight of styrene or at least one monounsaturated styrene derivative or a mixture thereof,

the stated percentages by weight of the individual components a), b) and c) summing to 100%, being used.

13. (Currently amended) A process according to ~~any of claims 2 to 11~~, a claim 2, the water-insoluble polymer ~~comprising~~ consisting essentially of

d) 100% by weight of at least one N-vinylamide of an aliphatic carboxylic acid, or of the monomers obtained by partial or complete hydrolysis of said amido group and of the formula $H_2C=CR^2NR^3C(O)R^1$, where R^1 , R^2 and R^3 , independently of one another, are hydrogen, C_{1-20} -alkyl, C_{1-20} -aryl or C_{1-20} -alkylaryl, being used.

14. (Currently amended) A process according to ~~any of claims 2 to 11~~, a claim 2, the water-insoluble polymer ~~comprising~~ consisting essentially of

d) 100% by weight of at least one vinylcarboxylic acid or esters, amides or salts thereof or of the monomers obtained by partial or complete hydrolysis of said amido group or ester group being used.

15. (Currently amended) A process according to claim 13, wherein the N-vinylamide is selected from N-vinylformamide, N-vinylacetamide, N-vinyl-N-methylacetamide, N-vinyl-N-methylformamide, acyclic amidines or mixtures thereof ~~being used as the N-vinylamide~~.

16. (Currently amended) A process according to claim 14, wherein the vinylcarboxylic acid or the esters, amides or salts thereof said vinylcarboxylic acid are selected from the group consisting of acrylic acid, acrylamide, C_1 - C_4 -alkyl acrylates, alkali metal acrylate, alkaline earth metal acrylate, methacrylic acid, methacrylamide, N-

isopropylmethacrylamide, C₁-C₄-alkyl methacrylates, alkali metal methacrylate, alkaline earth metal methacrylate, maleic acid, maleic anhydride, maleimide, mono(C₁-C₄-alkyl) maleates, di(C₁-C₄-alkyl)maleates, monoalkali metal maleate, dialkali metal maleate, fumaric acid, fumaric acid monoamide, fumaric acid diamide, mono(C₁-C₄-alkyl) fumarate, di(C₁-C₄-alkyl) fumarate, monoalkali metal fumarate, dialkali metal fumarate ~~or and mixtures thereof being used as the vinylcarboxylic acid or the esters, amides or salts thereof or the monomers obtained by partial or complete hydrolysis of said amido group or ester group.~~

17. A process according to ~~any of claims 1 and 3 to 16 or 2 to 16,~~ claim 1, wherein the preparation ~~being carried out~~ is conducted in the presence of a polymer mixture which ~~contains~~ consists essentially of

- a) a thermoplastic polymer and
- b) water-insoluble polymers of vinyl heterocycles or N-vinylamides, it being possible for the N-vinylamide polymers to be partly or completely hydrolyzed to amines.

18. (Currently amended) A process according to ~~any of claims 1 and 3 to 16,~~ claim 1, wherein the preparation ~~being carried out~~ is conducted in the presence of a polymer mixture ~~which contains~~ consisting essentially of

- i) from 5 to 95% by weight of at least one styrene polymer and
- ii) from 5 to 95% by weight of a crosslinked or uncrosslinked poly-N- vinylpyrrolidone.

19. (Currently amended) A process according to ~~any of claims 2 to 16,~~ claim 2, wherein the preparation ~~being carried out~~ is conducted in the presence of a polymer mixture ~~which contains~~ consisting essentially of

- i) from 5 to 95% by weight of at least one styrene polymer and

- iii) from 5 to 95% by weight of a poly-N-vinylformamide or of a polyamine obtained by partial or complete hydrolysis of the poly-N-vinylformamide.

20. (Currently amended) A process according to ~~any of claims 1 and 3 to 16 or 2 to 16, claim 1, wherein the preparation being carried out is conducted~~ in the presence of a polymer mixture ~~which contains~~ consisting essentially of

- ii) from 5 to 95% by weight of a crosslinked or uncrosslinked poly-N-vinylpyrrolidone and
- iii) from 5 to 95% by weight of a poly-N-vinylformamide or of a polyamine obtained by partial or complete hydrolysis of the poly-N-vinylformamide.

21. (Currently amended) A process according to ~~any of claims 1 and 3 to 16 or 2 to 16, the preparation being carried out is conducted~~ in the presence of a polymer mixture ~~which contains~~ consisting essentially of

- i) from 2 to 95% by weight of at least one styrene polymer,
 - ii) from 2 to 95% by weight of a crosslinked or uncrosslinked poly-N-vinylpyrrolidone and
 - iii) from 2 to 95% by weight of a poly-N-vinylformamide or of a polyamine obtained by partial or complete hydrolysis of the poly-N-vinylformamide;
- ~~the stated percentages by weight of the individual components i), ii) and iii) summing to 100%.~~

22. (New) A process according to claim 2, wherein the preparation is conducted in the presence of a polymer mixture which consists essentially of

- a) a thermoplastic polymer and

b) water-insoluble polymers of vinyl heterocycles or N-vinylamides, it being possible for the N-vinylamide polymers to be partly or completely hydrolyzed to amines.

23. (New) A process according to claim 1, wherein the preparation is conducted in the presence of a polymer mixture consisting essentially of

- ii) from 5 to 95% by weight of a crosslinked or uncrosslinked poly-N-vinylpyrrolidone and
- iii) from 5 to 95% by weight of a poly-N-vinylformamide or of a polyamine obtained by partial or complete hydrolysis of the poly-N-vinylformamide.

24. (New) A process according to the preparation is conducted in the presence of a polymer mixture consisting essentially of

- i) from 2 to 95% by weight of at least one styrene polymer,
- ii) from 2 to 95% by weight of a crosslinked or uncrosslinked poly-N-vinylpyrrolidone and
- iii) from 2 to 95% by weight of a poly-N-vinylformamide or of a polyamine obtained by partial or complete hydrolysis of the poly-N-vinylformamide.